WHAT IS CLAIMED IS:

1. An array optical subassembly for an array optical active component, comprising:

a substrate having two opposite surfaces, wherein a lens array is formed on one surface and multiple metal pads, multiple metal lines and alignment keys are formed on the other surface;

at least one optical active component deposed on the substrate, wherein the at least one optical active component has a multiple source array corresponding to the lens array of the substrate, multiple first terminals corresponding to the metal pads, and alignment keys corresponding to the alignment keys of the substrate;

a driver IC connected on the substrate, wherein the driver IC has multiple second terminals corresponding to the metal pads;

a circuit board connected on the substrate, wherein the circuit board has multiple third terminals corresponding to the metal pads; and

a cover covering the substrate, the at least one optical active component, the driver IC and the circuit board.

2. The array optical subassembly as claimed in claim 1, wherein the specific area of the substrate is made of transparent material and the metal pads include first metal pads, second metal pads and third metal pads; wherein

the first metal pads are respectively connected to the first terminals;

the second metal pads are respectively connected to the second terminals; and

the third metal pads are respectively connected to the third terminals.

3. The array optical subassembly as claimed in claim 1, wherein the source array of the at least one optical active component is composed of lasers.

4. The array optical subassembly as claimed in claim 1, wherein the source array of the at least one optical active component is composed of light detectors.

5. The array optical subassembly as claimed in claim 1, wherein the circuit board is flexible.

6. The array optical subassembly as claimed in claim 1, wherein the cover is a semi-airtight type or airtight type.

7. The array optical subassembly as claimed in claim 1, wherein each source array and each lens array respectively has one optical axis and the optical axes of the source array and lens array are parallel.

8. The array optical subassembly as claimed in claim 1, further comprising a connecting set having two opposite holes and the surface forming the lens array further forms two opposite guide rods, wherein the two opposite rods are respectively inserted to the two opposite holes.

9. The array optical subassembly as claimed in claim 8, wherein the connecting set further defines one recess for retaining a fiber connector with an optical fiber array, wherein the optical fiber array has one optical axis which is parallel with the optical axis of each lens array.

10. An array optical assembly comprising:

an array optical subassembly having:

a substrate having two opposite surfaces, wherein a lens array is formed on one surface and multiple metal pads, multiple metal lines and

alignment keys are formed on the other surface;

at least one optical active component deposed on the substrate, wherein the at least one optical active component has a multiple source array corresponding to the lens array of the substrate, multiple first terminals corresponding to the metal pads, and alignment keys corresponding to the alignment keys of the substrate;

a driver IC connected on the substrate, wherein the driver IC has multiple second terminals corresponding to the metal pads;

a circuit board connected on the substrate, wherein the circuit board has multiple third terminals corresponding to the metal pads; and

a cover covering the substrate, the at least one optical active component, the driver IC and the circuit board;

a base connected between the cover of the array optical assembly and the circuit board; and

a main circuit board electronically connected to the circuit board.

11. The array optical assembly as claimed in claim 10, wherein the base is L-shaped and has a vertical portion and a horizontal portion; wherein the vertical portion is defined with a through hole wherein the cover is retained in the through hole.

12. The array optical assembly as claimed in claim 10, wherein the specific area of the substrate is made of transparent material and the metal pads include first metal pads, second metal pads and third metal pads; wherein

the first metal pads are respectively connected to the first terminals;

the second metal pads are respectively connected to the second terminals;

and

the third metal pads are respectively connected to the third terminals.

13. The array optical assembly as claimed in claim 11, further comprising a heat sink, which is mounted on the horizontal portion of the base.

14. The array optical assembly as claimed in claim 10, wherein the source array of the at least one optical active component is composed of multiple lasers.

15. The array optical assembly as claimed in claim 10, wherein the source array of the at least one optical active component is composed of light detectors.

16. The array optical assembly as claimed in claim 10, wherein the circuit board is flexible.

17. The array optical assembly as claimed in claim 10, wherein the cover is a semi-airtight type or airtight type.

18. The array optical assembly as claimed in claim 10, wherein each source array and each lens array respectively has one optical axis and the optical axes of the source array and lens array are parallel.

19. The array optical assembly as claimed in claim 10, further comprising a connecting set having two opposite holes and the surface forming the lens array further forms two opposite guide rods, wherein the two opposite rods are respectively inserted to the two opposite holes.

20. The array optical assembly as claimed in claim 19, wherein the connecting set is further defined with one recess for retaining a fiber connector with an optical fiber array, wherein the optical fiber array has one optical axis

which is parallel with the optical axis of each lens array.